

# PAEDIATRIC CHEST ULTRASOUND

## Paediatric Chest Ultrasound

**Objective** To ensure that all staff follow correct procedure for ultrasonography of the chest in the paediatric patient.

**Responsibility** All sonographers, trainee sonographers, registrars and radiologists performing paediatric ultrasound examinations.

**Frequency** For all paediatric ultrasound examinations of the chest as requested by a clinician and subsequently prioritized by a radiologist. Usual requests are associated with the following concerns:

1	Assessment of pleural space: clear fluid, empyema, blood, chyle, pleural rind are all possibilities depending on clinical situation.
2	Lung abscess, cyst, mass or consolidation
3	Pericardial effusion
4	X-spot marking prior to tap or drainage

**Procedure** The following table describes the process to be followed for ultrasound examination of the chest in the paediatric patient.

Step	Action
1	Look at prior radiographs/ultrasound +/- report before starting.
2	Use small footprint probe to scan through rib spaces (8-5 MHz Curvilinear)
3	Have child in a sitting position if possible.
4	Scan from bottom of pleural space superiorly.
5	Scan back, side and front of chest in longitudinal and transverse planes.
6	Classify pleural contents as echo-free fluid, turbid fluid, with fibrous strands or organized rind.
7	Document loculated collections
8	Use colour Doppler to differentiate between consolidated lung and pleural rind.
9	Mark skin for drainage of fluid as required.
10	Try to quantify fluid volume
11	If present, characterize mass, consolidation, or abscess with grey scale images and color Doppler